Rot of potato tubers.—HAWKINS,[14] continuing his studies on the effect of various fungi on their hosts, has investigated the effect of *Fusarium oxysporum*, *F. radicicola*, and *F. coeruleum* on the sugar content, both sucrose and reducing sugar, pentosans, methyl pentosans, galactans, dry matter, starch, and crude fiber of the potato tuber. The crude fiber content of the tubers was not reduced, starch and methyl pentosans were not affected appreciably, while the content of the other substances was reduced. It is interesting from the point of view of resistance to fungus invasion that the least digestible forms occur in greatest proportions in the skin and cortical regions of the tuber. *Fusarium oxysporum* and *F. radicicola* were found to secrete sucrase, maltase, xylanase, and diastase. The diastase, like the malt diastase that BROWN and MORRIS worked with, is incapable of attacking ungelatinized potato starch.—GEORGE K. K. LINK.

Phytoplankton of the oriental tropics.—OSTENFELD[15] has published a list of the phytoplankton of one of the straits of the Malay Archipelago. The list is based chiefly upon a large collection of drawings made by P. TH. JUSTESEN in 1909 and 1910, while residing at one of the small military stations in the Dutch Indies. The list includes 100 species, the largest group being the diatoms, with 56 species representing 23 genera. The Peridiniales constitute the other large group, including 40 species in 11 genera, the largest genera being *Ceratium* with 17 species, and *Peridinium* with 12 species. The general character of the plankton is said to be that of a "tropical neritic plankton," very much like the plankton examined by CLEVE and OSTENFELD from the Malay Archipelago and the Gulf of Siam.—J. M. C.

Branched prothallia.—Miss WUIST[16] has investigated the early stages of the gametophytes of the Polypodiaceae in reference to branching, subjecting them to various culture conditions. She observed branching in cultures of 15 species representing 9 genera. Branching, which was both dichotomous and monopodial, was not a response to any one type of culture medium, but appeared on distilled water, on soil, and on various nutrient solutions. Branches did not appear at any definite period in the life history of the gametophyte, but were formed by any cell of the filament, by divisions of the last cell of the filament, and from the margin and apex of the expanded portion of the prothallium. The author has concluded that a definite relation exists between branching and nutrition.—J. M. C.

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[14] HAWKINS, LON A., Effect of certain species of *Fusarium* on the composition of the potato tuber. Jour. Agric. Research **6**:184–196. 1916.

[15] OSTENFELD, C. H., A list of phytoplankton from the Boeten Strait, Celebes. Dansk Bot. Arkiv **2**:no. 4. pp. 18. *figs. 10*. 1915.

[16] WUIST, ELIZABETH D., Branched prothallia in the Polypodiaceae. Bull. Torr. Bot. Club **43**:365–383. *figs. 15*. 1916.